

PATENT APPLICATION
Application No. 09/847,055
Paper Dated November 3, 2004
Attorney Docket No. 128148.00620

REMARKS

Applicants have thoroughly reviewed the outstanding Office Action, including the Examiner's remarks and appreciate the Examiner's diligence and suggestions in this case. Claims 1-8, 10-24, 78-82, and 102-112 are pending in the present application.

The Applicants have made amendments to the independent claims in this case such that the composition/composite embodiments are comprised of ferrite particles that are greater than or equal to about 1 micron in size. Support for this limitation may be found in claim 8 and throughout the text, specifically on page 18. Additionally, the Applicants have amended the independent claims such that the compositions/composites are capable of being heated to the Curie temperature by applying a magnetic field to the composition at a frequency of less than about 30 MHz. Support for this frequency value may be found in original claim 41, on page 7, page 22, in Table 5 and Table 6.

New dependent claims 106-112 have been added to dependent from claim 17. Support for these amendments are found in the Examples and in original claims 5-8 and 10-12. Therefore, the claim sets for independent claim 1 and independent claims 17 have similar dependent claims. No new matter has been presented by the present amendments. The Applicants have deleted claim 9.

Drawings

The Examiner has objected to FIGS. 18 and 19. Corrected drawings sheets are submitted herein in compliance with 37 C.F.R. 1.121(d).

Claim 79

Claim 79 was objected to under 37 C.F.R. 1.75(c) as being improper. The Applicants have deleted claim 79.

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Claim rejections under 35 U.S.C. § 112

Claims 14, 21, 81, 102 and 104 are rejected under 35 U.S.C. § 112, second paragraph. The Applicants have used the Examiner's suggestions and have made appropriate amendments to these claims.

Claim rejections under 35 U.S.C. § 102(b) / 103(a)

Claims 1, 6, 9, 14-18, 20-23, 78, 80 and 81 are rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent No. 498,988 (the '988 Patent). Additionally, the Examiner has made several rejections to the claims under § 103(a) over the '988 Patent alone and in combination. Applicants respectfully request reconsideration of the rejections. The present claim amendments include claim limitations not described or suggested in the '988 Patent. Specifically, the independent claims describe the ferrite particles as greater than or equal to about 1 micron in size. The ferrite particles taught in the '988 Patent are 0.001 to 0.1 micron in size, which is specifically outside of the presently claimed range.

The '988 Patent, alone or in combination with any other reference(s) does not render the presently claimed compositions/composites obvious. As presently amended, the claims recite the limitation that the compositions/composites comprised of the ferrite particles may be heated to the Curie temperature by a magnetic field at a frequency of less than about 30 MHz. This frequency range is much lower than the frequency range taught by the '988 Patent. See column 5, line 52 of the '988 Patent, wherein microwave energy is supplied to the compositions having a frequency of 400 MHz to 3000 MHz. Furthermore, the '988 Patent teaches away from the present compositions in that the microwave energy of the '988 Patent is supplied at frequencies preferably in the upper section of that disclosed range. Therefore, the '988 Patent teaches composites comprised of smaller particle sizes (0.1 micron or less) that require larger energy values (preferably 3000 MHz) to heat the composites, while the present compositions are comprised of larger-sized ferrite particles (1 micron or greater), which may be subjected to lower energy values (less than about 30 MHz) and still reach specific Curie Temperatures.

The present combination of ferrite particles and matrix material allow for controlled induction heating composites and applications. The compositions/composites claimed herein result in more energy efficient heating applications, which require substantially less energy than the compositions taught by the '988 Patent. The present

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compositions utilize low energy values and still reach specific controlled heating temperatures.

The dependent claims in the application dependent directly or indirectly from and add further limitations to the independent claims and are therefore considered allowable for at least the same reasons as discussed with respect to the independent claims.

In view of the above remarks, reconsideration and withdrawal of the rejections and favorable reconsideration of claims 1-8, 10-24, 78-82, and 102-112 are respectfully solicited.

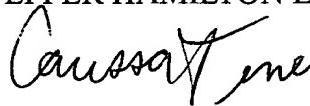
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CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that all pending claims as currently presented are in condition for allowance. Applicants respectfully request the Examiner to pass the case to issue at his earliest convenience. Claims 1-8, 10-24, 78-82, and 102-112 are pending in the present application.

Applicants do not believe that a fee is required. In the event that an additional fee is required for this response, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-0436.

Should the Examiner have any questions or comments, or need any additional information from Applicants' attorney, the Examiner is invited to contact the undersigned at his convenience.

Respectfully submitted,
PEPPER HAMILTON LLP

Carissa A. Tener
Registration No. 52,278

Date: November 3, 2004
PEPPER HAMILTON LLP
One Mellon Center, 50th Floor
500 Grant Street
Pittsburgh, PA 15219
Telephone: (412) 454-5000